

REMARKS

Claim 6 is canceled herein. Accordingly, upon entry of the Amendment, claims 1-4 and 8-19 will be all of the claims pending. Of these, claims 16-19 are withdrawn from consideration.

The rejection under 35 U.S.C. § 102(b) or in the alternative under 35 U.S.C. § 103(a) over Daicel (JP '303) has been withdrawn.

I. Response to Claim Rejection under 35 U.S.C. § 112, 2nd Paragraph

Claim 6 is rejected under 35 U.S.C. § 112, 2nd paragraph, as not further limiting claim 1. The Examiner notes that the claim 6 recites a broader range of the amount of the powdery particles than claim 1.

Claim 6 is canceled herein, thereby obviating the rejection. Accordingly, Applicants respectfully request withdrawal of the § 112 rejection.

II. Response to Rejection under 35 U.S.C. § 103

Claims 1-4, 6, 8-15 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Diacel (JP '303) in view of Nakano et al.

Applicants respectfully traverse the rejection based on the following:

The present invention relates to a composition for polyolefin resin foam, which comprises a polymer component comprising: a polymer resin, and at least one of a rubber and a thermoplastic olefin elastomer, and powdery particles having a particle size of from 0.1 to 10µm and in an amount of from 10 to 130 parts by weight based on 100 parts by weight of the polymer component, wherein said composition has a melt tension of at least 20 cN when measured in a range between a first temperature at a melting point of said composition and a second temperature that is 20°C higher than said first temperature.

On the contrary, JP' 303 discloses a resin composition for foaming an object, which comprises: 100 parts by weight of polypropylene resin mainly containing 90 to 10 parts by weight of polypropylene homopolymer having a melt tension at 230°C of 7 gf or more and 10 to 90 parts by weight of polypropylene copolymer having a melt tension at 230°C of 7 gf or more; and 5 to 70 parts by weight of polyolefin elastomer. In this regard, in JP '303, melt tensions of the specific components contained in the composition are defined, but the melt tension of the entire composition is not defined, and thus JP' 303 does not teach or suggest that the composition for polyolefin resin foam has a melt tension of at least 20 cN when measured in a range between a first temperature at a melting point of said composition and a second temperature that is 20°C higher than said first temperature, as recited in the present claims. Further, it is described in JP' 303 that, with respect to the use amount, 0.1 to 5 parts by weight of a nucleating agent is preferably used to the total 100 parts by weight of the resin composition for foaming object.

The Examiner asserts that it would be obvious for the person skilled in the art to increase the amount of particles (flame retardant) in the composition of JP' 303 in order to improve the flame retardant property, in view of the description of Nakano. However, although Nakano relates to an incombustible resin composition which does not form a toxic gas or smoke upon combustion and is suitably used for building material and there might be no regulation to increase of the amount of the flame retardant, the present invention and JP' 303 relate to a composition for a resin foam. Contrary to JP '303 there arises a problem that outgassing occurs during the production of resin foam thereby impairing the foaming property when the amount of the flame retardant is increased (see, for example, Comparative Example 1 of the present

application). To solve this problem, it is found in the present invention that, when a melt tension is set to be equal to or higher than 20 cN when measured in a range between a first temperature at a melting point of said composition and a second temperature that is 20°C higher than said first temperature, the cell wall becomes resistant to destruction and high expansion ratio can be obtained.

Namely, even if it would be possible to increase the amount of flame retardant in the composition of JP' 303 in view of Nakano, since JP' 303 does not teach or suggest defining the melt tension of the entire resin composition, the present invention would not have been easily expected based on the disclosure of the cited references.

III. Conclusion

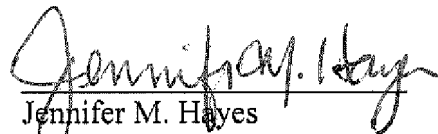
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment under 37 C.F.R. § 1.116
Application No. 10/780,599

Q79835

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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